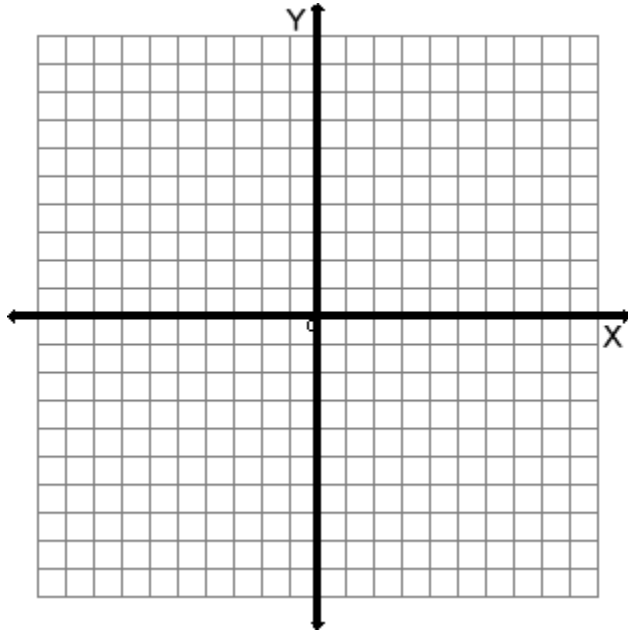


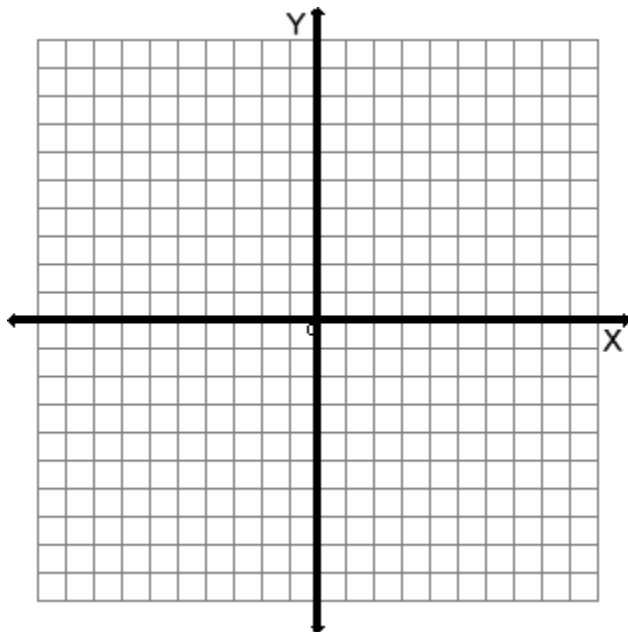
Graphing Conic Sections

Graph the following circles. Label the center and include the length of r .

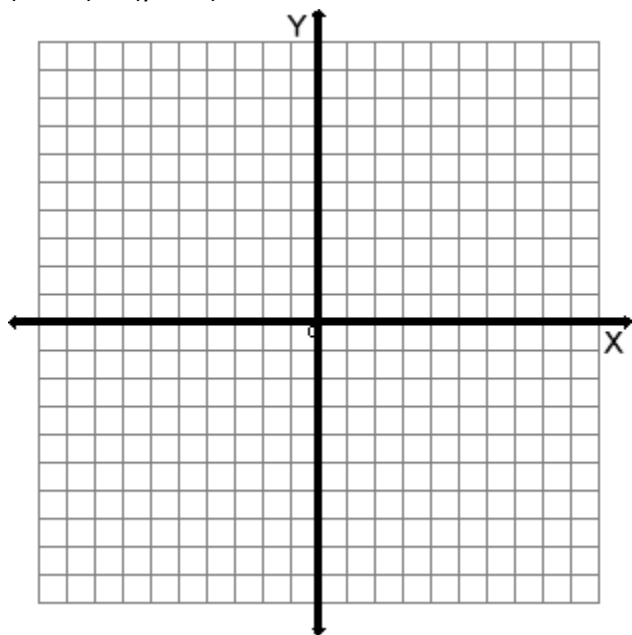
1) $x^2 + (y + 4)^2 = 4$



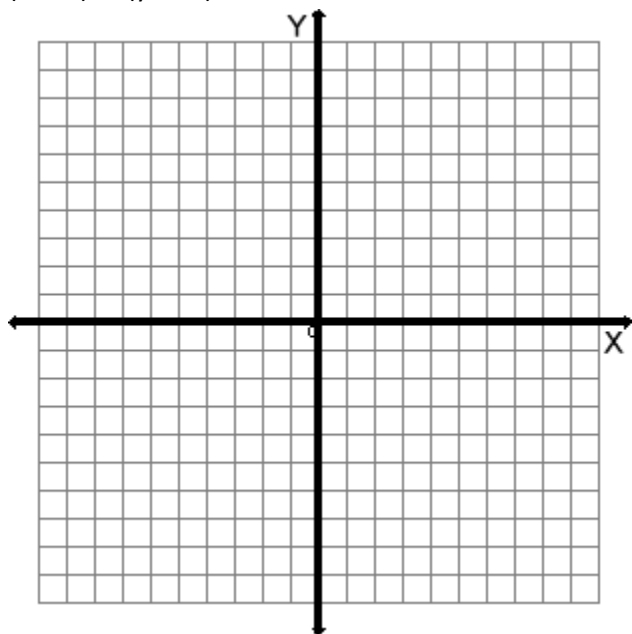
2) $x^2 + y^2 = 9/4$



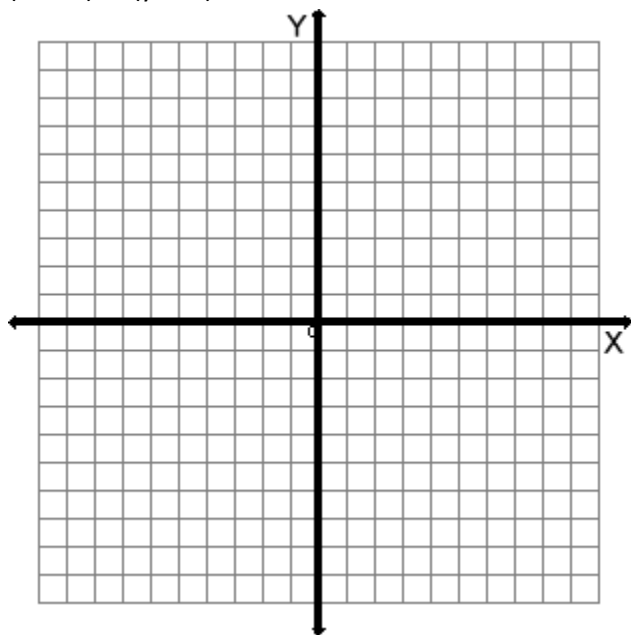
3) $(x + 1)^2 + (y + 3)^2 = 16$



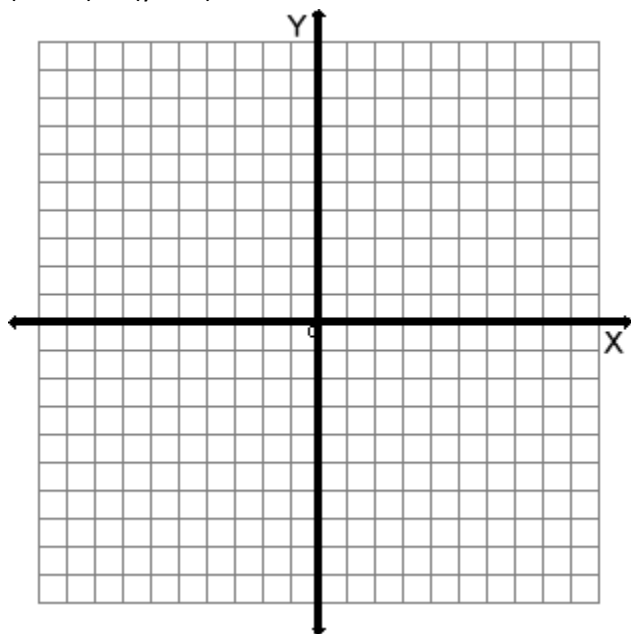
4) $(x - 3)^2 + (y + 2)^2 = 16$



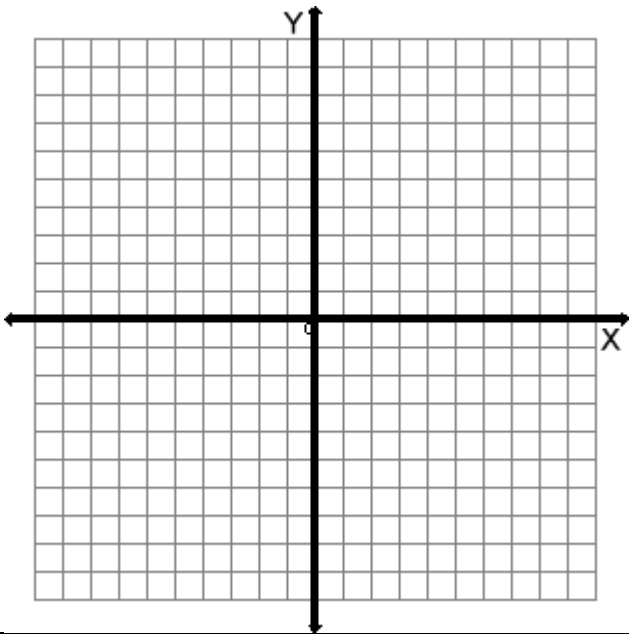
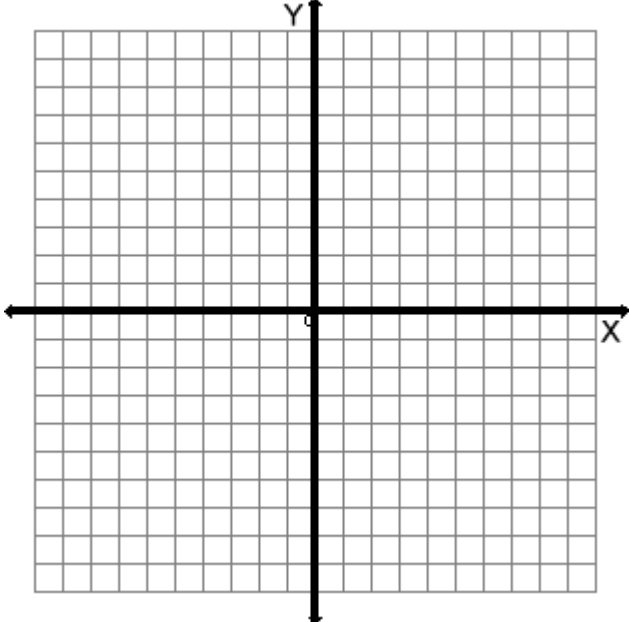
5) $(x + 4)^2 + (y - 2)^2 = 9$



6) $(x + 1)^2 + (y - 3)^2 = 36$

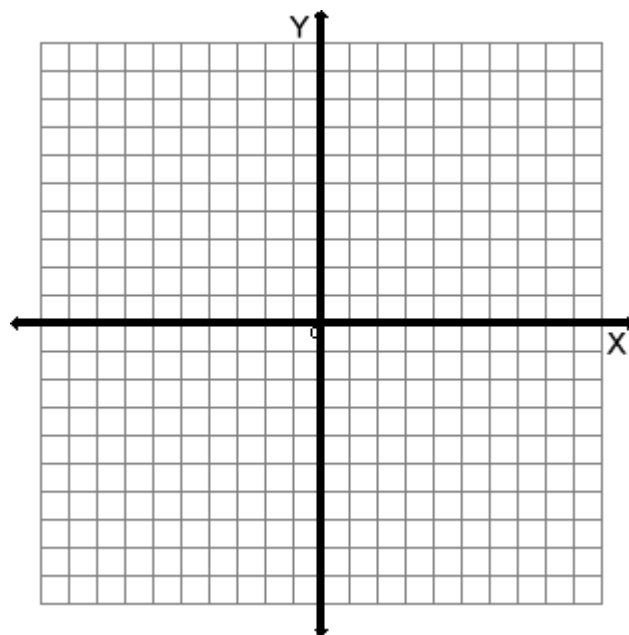


Graph the following ellipses. Label the center, vertices, and co-vertices.

7)	$\frac{(x + 4)^2}{144} + \frac{(y - 6)^2}{1} = 1$ 
8)	$\frac{(x + 7)^2}{49} + \frac{(y - 7)^2}{100} = 1$ 

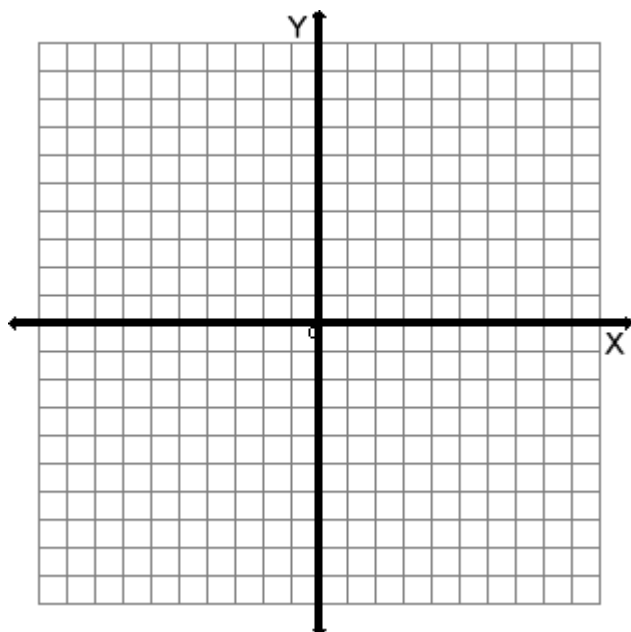
9)

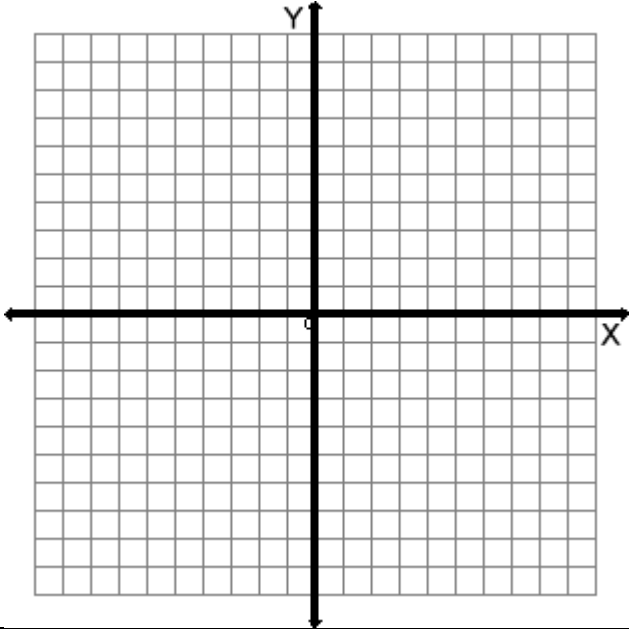
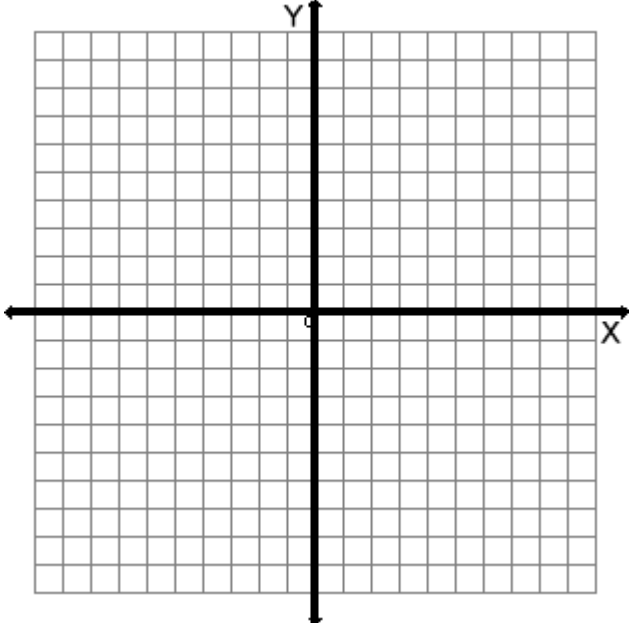
$$\frac{(x + 3)^2}{169} + \frac{(y + 8)^2}{25} = 1$$



10)

$$\frac{(x + 2)^2}{256} + \frac{(y - 3)^2}{36} = 1$$

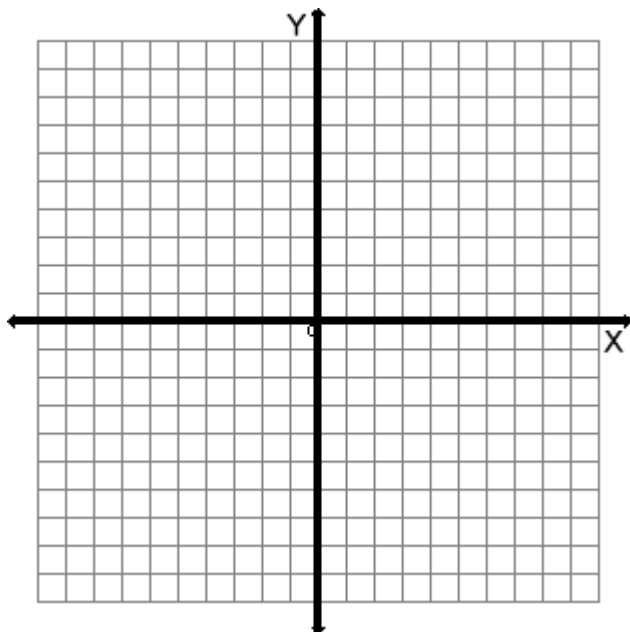


<p>11)</p>	$\frac{(x + 5)^2}{25} + \frac{(y + 8)^2}{49} = 1$ 
<p>12)</p>	$\frac{(x - 4)^2}{100} + \frac{(y - 5)^2}{36} = 1$ 

Graph the following hyperbolas. Label the center, the vertices, co-vertices, and draw the asymptotes.

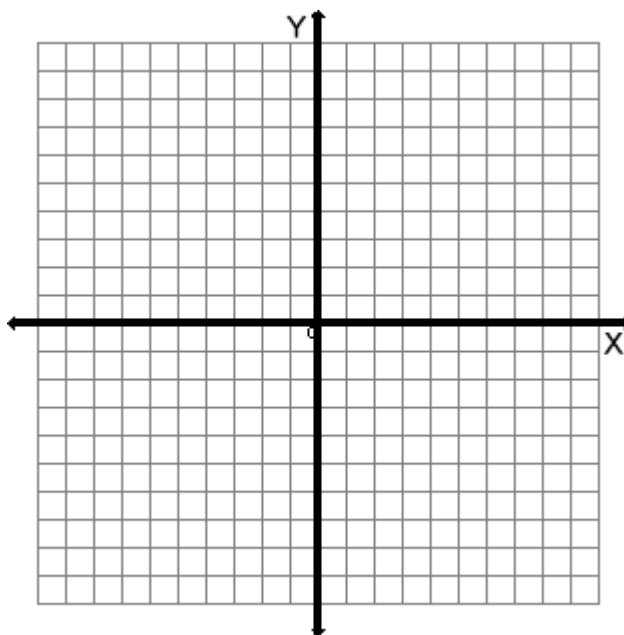
13)

$$\frac{(x + 1)^2}{49} - \frac{(y + 2)^2}{9} = 1$$



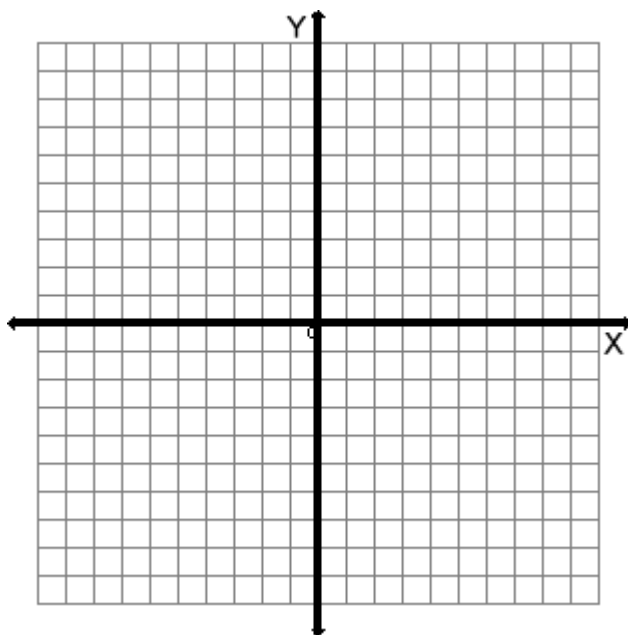
14)

$$\frac{(x + 5)^2}{36} - \frac{(y + 6)^2}{81} = 1$$



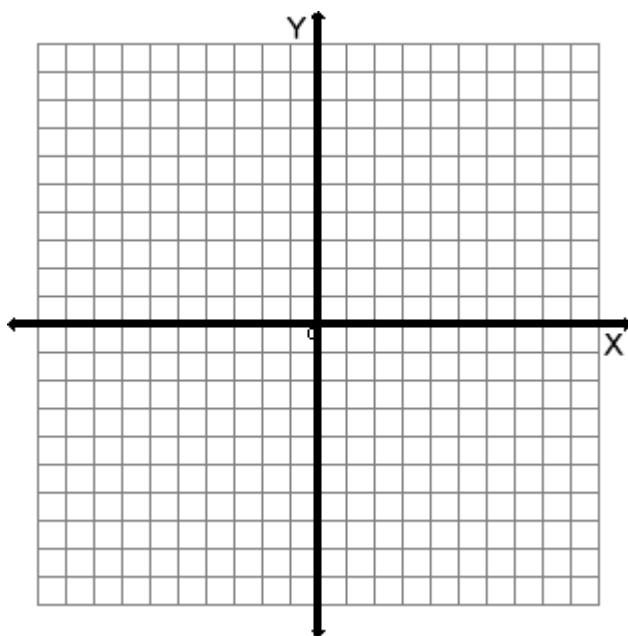
15)

$$\frac{(y + 5)^2}{81} - \frac{(x - 4)^2}{49} = 1$$



16)

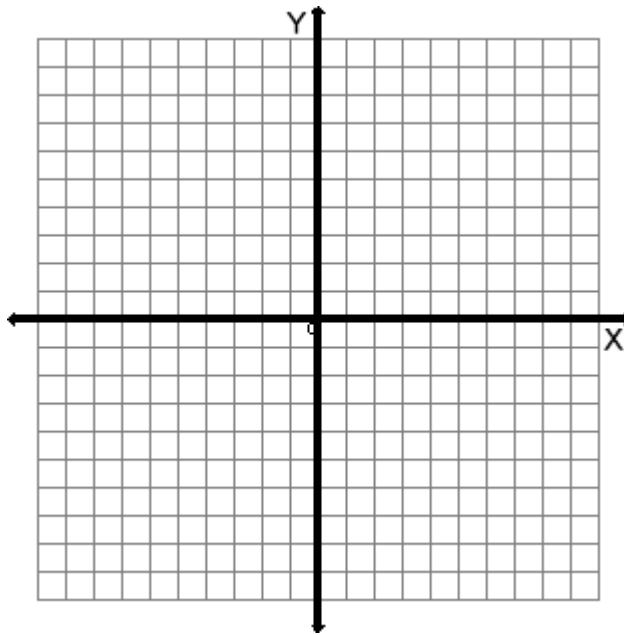
$$\frac{(y + 6)^2}{49} - \frac{(x - 5)^2}{49} = 1$$



17)

$$\frac{(x + 2)^2}{36}$$

$$- \frac{(y - 4)^2}{36} = 1$$



18)

$$\frac{(x + 1)^2}{25} - \frac{(y - 3)^2}{25} = 1$$

